

BITS

computing&communications news

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COMPUTING, INFORMATION, AND COMMUNICATIONS (CIC) DIVISION • LOS ALAMOS NATIONAL LABORATORY

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Scientists are using computer simulations like this one to advance oceanographic research, to study changes in the global climate, and to help oil companies understand the oceanic environment in which their exploration and production platforms must operate. Turn to the back cover to see the complete image and a more detailed caption.

<p>CIC Customer Service Center (505) 665-4444 or cichelp@lanl.gov</p>

Integrated Computing Network (ICN)

Consulting:

Centralized scientific and engineering computingconsult@lanl.gov or 7-5746

Lab-wide administrative and business systems.....labwide@lanl.gov or 7-9444

Passwords (required for access to ICN)validate@lanl.gov or 5-1805

Systems documentation (local and vendor supplied).....7-6992

Central Computing Facility (CCF)7-4584

Advanced Computing Laboratory (ACL)5-4530

Local Area Network (LAN) system administration services.....5-2220

Desktop Support Center (DSC)7-4357 (7-HELP)

(PC Help for IBM and Macintosh personal computers)

For questions about PC software: PCSW-help@lanl.gov or 7-5884

For questions about PC hardware: PCHW-help@lanl.gov or 7-9372

For questions about Mac software: MacSW-help@lanl.gov or 5-1361

For questions about Mac hardware: MacHW-help@lanl.gov or 7-6459

Telephone Services Center7-3400

(includes voice mail)

Computer training

Lab-wide systems support training7-9444

Computer/workstation training7-9399

Personal computer training7-9071

Microcomputer support facility seminars7-4357

(Macintosh/IBM software, lending library)

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CIC Consultants: Who to Call

Before the formation of CIC Division, computing and communications consultants operated, at least to some extent, on an independent basis. Teams of consultants provided their services to different segments of Laboratory users. For example, the ICN Consultants were devoted primarily to users of the ICN and its associated services. As a result of the Laboratory reorganization last year, these various consulting teams were brought together under the CIC banner. Currently, CIC has four consulting teams: Customer Service Center, ICN Consulting Office, Lab-wide Systems Support, and Desktop Support Center. The following descriptions should give you a pretty good idea about the areas of expertise within each consulting team.

The CIC Customer Service Center

The newly formed Customer Service Center (CSC) is designed to accomplish what its name suggests, provide CIC Division and its customers with professional consultation about computing and communications at Los Alamos. The CSC functions as the front door for CIC consulting. Regardless of the nature of the customer's request, if it has to do with computing and communications at Los Alamos, the CSC will respond. As the first point of contact, CSC representatives will either answer the customer's question directly or locate someone who can. However, CSC reps don't just pass out names and numbers. As CSC team leader Diana Tuggle explains: "If we can't answer the customer's question, our goal is to not only locate a consultant with the required expertise, but to also have that consultant contact the customer, then we call the customer back to make sure the problem was solved." CSC reps are trained to answer questions about a variety of topics such as e-mail, validation and registration for ICN computing, and how to acquire needed services. The CSC is open Monday through Friday from 8:00 to noon and 1:00 to 5:00. Customers may contact the CSC by phone (665-4444) or e-mail (cichelp@lanl.gov).



The Customer Service Center Team: Front/L to R, Sabrah Calloway, Susan Trujillo, Diana Tuggle, Leann Anderson; Back/L to R, Robin Naffziger, Lourdes Martinez, Rachal Haggart.

The ICN Consulting Office

Established some 23 years ago, the ICN consulting office continues to serve customers of the ICN and its associated services. These services include the following:

- Compute Servers:
 - Machine BETA (general purpose UNIX machine);
 - Machine CCVAX (general purpose VMS machine);
 - Machines DELTA, EPSILON, RHO, & ZETA (Cray YMPs);
 - GAMMA (Cray M-90);
 - Machine TAU (Cray T3D front-ended by a Cray YMP); and
 - Open-Partition Workstation Cluster (Cluster of eight IBM RS/6000 workstations).
- File Storage Services: Machine CFS (high-capacity disk and tape farm for saving and archiving files).
- Information Services: Mosaic, Gopher, and Netscape.
- Systems: VMS, UNIX/ULTRIX, SunOS, AIX, and UNICOS.
- Compilers: Fortran, C, and C++.
- Debuggers: Cray debuggers LDB and CDBX.
- Typesetting Systems: TeX, LaTeX, and troff.
- Editors: VI, RE, FRED, EDT, and FEDIT
- Workstation Software: VTERM, COTERM, Windows, Eudora, Trumpet Winsock, and em4010
- Script Languages: FCL, CSH, SH, KSH, and PERL
- UNIX User Commands: LS, SORT, TAR, CPIO, AR, ... ad infinitum

The combined expertise of the ICN consultants is usually sufficient to answer questions about any of the services listed above. However, for those questions they cannot answer, ICN consultants rely on the resources of the CIC Division staff and, occasionally, resources of non-LANL installations.

Sometimes a question will require a follow-up call from the consultant to the customer. In these cases, it's a good idea to make sure the consultant has your name and telephone number. This is doubly important when your communication is done by voice mail. ICN consultant John Wood recommends the following: "Give both your name and telephone number at the beginning and end of a voice mail message—give that information slowly, as though you were speaking to a small child. All our staff is over 21 years, but think of them as about 7." The ICN Consulting Office is open Monday through Friday from 8:00 a.m. to 5:00 p.m. except from 1:00 to 2:00 on Mondays. You may contact them by phone (667-5746) or e-mail (consult@lanl.gov).



ICN Consulting Team: L to R, David Kratzer, John Wood, Sara Harshman, Ted Spitzmiller, Jeff Johnson, Bill Barber.

Lab-wide Systems Support

The Lab-wide Systems Support team provides a wide range of consulting for 25 on-line business information systems used throughout the Laboratory. Some examples include the following:

- Employee Development System (EDS); used by training coordinators to request course enrollment, retrieve training transcripts, and generate training reports.
- Property Accounting, Inventory, & Reporting (PARIS); used by property administrators to update property element and location information and to generate and print a variety of property reports.
- Employee Information (EI); used by group secretaries and others to maintain all Laboratory and non-Laboratory personnel and location information.

- Travel Reporting Information Planning System (TRIPS); used by group secretaries and others to input domestic travel requests.
- Budget Computing System (BUCS) and Financial Management Information System (FMIS); used by budget personnel throughout the Laboratory to generate financial reports.
- Signature Authority System (SAS); used mainly by Laboratory managers to assign, view, and change signature authorities.

The team also supports JetForm, an on-line forms software accessed from Mosaic or Netscape, and will soon be supporting the new GUI Time and Effort System which is scheduled for production later this year.

Additionally, Lab-wide consultants represent the voice of the customer by incorporating customer feedback into the development and testing process of new and existing Lab-wide systems. Lenna Andrews summarizes the team's approach to consulting: "We understand that some of the Lab-wide systems are complex and at times difficult to operate, which is why we strive to provide our customers with the assistance they need to make their jobs a little easier." The Lab-wide consultants are available Monday through Friday from 8:00 a.m. to 5:00 p.m. You may contact them by phone (667-9444) or e-mail (labwide@lanl.gov).



Lab-wide Systems Support Team: L to R, Vonetta Pompeo, Mary Jo Fischer, Lenna Andrews.

Desktop Support Center

The Desktop Support Center (DSC) is a self-directed work team within the Desktop Group (CIC-2) that provides the “7-HELP” telephone support for the Laboratory as well as other computer support functions. Team leader John Layne describes their scope: “The ‘Desktop’ refers to desktop computers, not big ICN supercomputers, but ones that can fit on, next to, or under a desk. We’re not called the Desktop Computer Support Center because we also provide support for networking and system administration as well.”

The DSC provides consulting on desktop products (PC, Apple, UNIX—hardware and software), recommends products, helps with configuration and user questions, provides technical information, and evaluates new products. It is staffed every weekday from 8:00 a.m. to 5:00 p.m., except from 12:00 to 1:00 on Thursdays. The DSC has strong vendor relations and technical support with major software companies. These ties provide faster access to software company help lines and allow for fast responses to inquiries that the DSC cannot answer directly.

When you call 7-HELP (7-4357) you can choose from the following computer support choices via your touch-tone key pad:

- 1—help with IBM PC hardware questions (7-9372)
- 2—help with IBM PC software questions (7-5884)
- 3—help with Macintosh hardware questions (7-6459)
- 4—help with Macintosh software questions (5-1361)
- 5—help with UNIX workstation questions (7-6469)
- 6—to reach the CIC-2 PC Store (7-3194)
- 7—to leave feedback about our quality of service
- 0—to speak to our receptionists (5-HELP or 5-4357)

The numbers listed in parentheses are the direct-dial numbers for the various support choices. So, for example, if you knew you had a Mac software question, you could call 5-1361. There are also e-mail addresses for these support functions listed on the inside front cover of BITS. The UNIX workstation support line is still in the process of becoming adequately staffed, so it sometimes works on a call-back basis. Finally, there is the 5-2220 number, which is used by customers who have arranged for support contracts with CIC-2.

John Layne continues: “We are constantly trying to improve our service to our customers. If you find that our service has not been satisfactory, or if you wish to make suggestions or perhaps even pass along kudos for someone, you can call 7-HELP and press 7 or send e-mail to CIC-2_feedback@lanl.gov.”

Other services provided by the DSC include the following: a software library of almost 1,000 packages for both Macs and PCs that can be checked out for one week evaluations; a demo room where sample hardware is available for trial and where vendors routinely offer presentations on various hardware and software products; a small computer rental program; and a select freeware and site-licensed software distribution program.



Desktop Support Team: Front/L to R, Brian Wayman, Chris Williams, Matt Kochis, Andrew Collins, John Layne; Back/L to R, Erin Copeland, Karen Rodney, Brandon Huey, Danette Martinez, Mike Mikus; Not shown, John Canavan, Leo Lopez, Tony Maestas, Cristina Martinez, Steve Montoya, Janet Yelowchan, Raven Zachary.

Compiled and Edited by Mike Finney
Communications Arts and Services (CIC-1)

Library without Walls: Digital Library Developments at LANL's Research Library

During the last several years, the conceptual paradigm of special research libraries has changed from a focus on buildings, which house physical collections, to information services, which are bound neither by the walls of a library building, nor the traditional book and journal collections. In this new paradigm, library users connect remotely and use computer technology to access local and worldwide information providers—a concept known as the digital library.

A variety of factors have propelled digital library developments to the forefront of information science. These factors include rapidly advancing information technologies coupled with rising customer expectations; plans for a National Information Infrastructure, with its associated requirements for storing and accessing vast amounts of digital data over the information superhighway; and limited financial resources for the acquisition of ever-growing scientific publications, which continue to outpace inflation.

During the Laboratory reorganization, the Research Library was placed within the Computing, Information, and Communications (CIC) Division. The reorganization provided the Library with an opportunity to raise the visibility of several major strategic initiatives focusing on information management. One of the most significant is the Library without Walls project.

Vision for a Library without Walls

The Research Library's vision for library services seeks to combine the best information resources, staff, and technology to deliver world-class service to our research community. Our vision embodies the belief that we will become leaders in providing access to global electronic information resources by anticipating and meeting customer needs. One manifestation of those needs is the delivery of information to researchers' desktops—wherever and whenever needed—from digital library resources. This concept is the essence of the Library without Walls.

Several key goals and principles define the Library without Walls initiative:

- The digital library is not a single entity at Los Alamos, rather it requires the seamless integration of other digital library resources through technology linkages;
- We should provide worldwide access to the digital resources of the Research Library and the Laboratory's scientific research;
- The convergence of many distinct efforts encompassing a variety of fields will be required to support the Library Without Walls;
- We must incorporate new multimedia, interactive compound documents and digital artifacts that extend beyond the linear capabilities represented by print publications; and
- Systems and products must be measured by their ability to enhance new forms of collaboration among our users.

The long term goal is to create a network of knowledge systems and machines that facilitate synergy and collaboration between people.

Laying the Foundation

Before embarking on a digital library initiative, we needed to establish the infrastructure to improve our information technology foundation and provide appropriate tools to build our service capabilities. The following capabilities were integrated to provide that foundation:

- The automated library system and on-line catalog were upgraded to provide external public access. The on-line catalog is publicly available through either telnet (library.lanl.gov), Gopher, or the Web (<http://lib-www.lanl.gov>). Installation of a smaller system will allow similar support for classified technical reports at a later date.
- A robust Local Area Network (LAN) was deployed to support CD-ROM databases and provide access to Internet resources. Today the CD-ROM network supports 23 discreet databases and a full-image business database with 320 business publications. We are initiating support for Laboratory-wide connections to the CD-ROM databases which allow users to access the Library's CD-ROM systems. Access for UNIX machines is provided through an X-window client, providing the full capabilities allowed by the CD application in native PC mode.

Current Library Without Walls Projects

The heterogeneous computing environment at the Laboratory places a premium on the ability to deliver services across multiple platforms via TCP/IP. The exponential growth of the WorldWide Web has significant implications for library access and application development. Consequently, ubiquitous access to the Web is driving several efforts to provide library information through web clients to the desktop.

Constructing the Library without Walls involves several inter-related projects that are at varying stages of completion, each solving different facets of the digital library goals. Following are brief descriptions for two of these efforts.

Accessing Published Scientific Literature

Access to published literature in the form of indexes, abstracts, and alert services remains vital to track developing multi-disciplinary research. To address this need, the Library has invested in CD-ROM database products, which provide access to citations, full-text, or images. This approach, however, does have impediments. Mixing a variety of CD products from different providers creates severe limitations in searching across multiple years and imposes the need to learn different user interfaces. These limitations, in addition to the high cost of providing external access, impede access in a heterogeneous environment.

To work within our goal of delivering information services via Web clients, such as Mosaic or Netscape, the Library Without Walls embarked on a development effort to test the delivery of the Science Citation Index (SCI) database via Web clients, with Verity's Topic serving as the search engine underneath the Web clients. SCI was chosen for the pilot effort because of the comprehensive range of science it covers, the corresponding appeal to the interdisciplinary research interests of the Laboratory, and the proven value of citation trails.

A prototype of the SCI database with abstracts is now running and we are preparing to load 7 million SCI records, dating back through 1985. Of special research interest is the fact that this database grows rapidly (80 MB weekly) and the full set is large enough to require significant processing to support broad multi-year queries. To date, this is the only existing effort to provide access to the SCI database via the Web.

Providing an Image & Full-text Database of Technical Reports

Researchers desire access to end-products rather than information about the end-products. To meet this expectation we must solve the issues surrounding access to and retrieval of full images.

The Library without Walls project is tackling these issues by providing desktop digital access to unclassified Los Alamos technical report images. Our initial goal is to put the full-text and scanned page images of over 5,000 unclassified Los Alamos technical reports into a locally mounted network-based server with an easy to use retrieval protocol. LA reports will then be available in PDF format to Laboratory users and external machines connected to the Internet. Unclassified Los Alamos technical reports were logical documents to begin with because they are a part of our institutional memory and no copyright issues exist. These technical reports date back to 1943 and contain reports of research, conference proceedings, and environmental reports. Furthermore, this effort will support our goal of making the products of Los Alamos scientific research widely available to the public.

In order to improve search and retrieval of LA reports, the project is linking these digital reports to the library's on-line catalog. Currently, we are working on improving our prototype Web/HTML form interface which can be used to query the on-line catalog.

Conclusion

The Research Library has taken significant steps to not only deliver digital information to the Laboratory, but also to the worldwide scientific community and the public via the Internet. These initial steps can be viewed as setting the foundation for further developments in providing research materials to the desktop.

Rick Luce, rick.luce@lanl.gov, (505) 667-4448
Project Leader/Library without Walls



Los Alamos National Laboratory Research Library

Improved Turnaround for Processing New ICN Accounts

ICN users can now be added to the system overnight. Just turn in the completed ICN Validation Request to the Password Office by 3:00 p.m., and the account will be available for your use the next morning. This decrease in processing time will allow new staff to become productive a week earlier. The change will be particularly beneficial in the summer months ahead when many short-term visitors and students join our staff. Over the next year, we hope to automate much of the currently paper-intensive process of initiating an ICN account and obtaining passwords. This is one part of CIC Division's tactical goal of creating an integrated authentication system.

To participate in the authentication team discussions, subscribe to the authentication mailing list. You may do this by sending an electronic mail message to ListManager@lanl.gov with the following in the body of the message:

subscribe authentication

end

(Note: The subject field will be ignored.)

Wanda Dunlop, (505) 665-1805, wanda@lanl.gov
Customer Service Group (CIC-6)

Phil Villareal, (505) 665-1805, pmv@lanl.gov
Customer Service Group (CIC-6)

Sharon Wilhelmy, (505) 665-6328, sw@lanl.gov
Customer Service Group (CIC-6)



CIC-7 Sponsors Computing Conference

CIC-7 Means Production-Quality Computing

Although it may not seem fashionable these days, demand for big-iron computing at Los Alamos continues to grow. To satisfy this demand, the dedicated staff of the Los Alamos Computing group (CIC-7) provides round-the-clock operations along with administrative and development support for many of the Laboratory's top and mid-range computing systems. These systems include multiple Cray supercomputers; massively parallel CM-200s; an IBM 9021-580 mainframe; workstation clusters; multiple VAXs and Suns; and a WANG. CIC-7 personnel are dedicated to maintaining a consistently high, production-quality level of stable service.

In the coming months CIC-7 plans to develop articles to highlight its operations, system administration, development activities, and information about recent system improvements, as well as those yet to come. This month their focus is on an activity that, although may be unusual for a group such as CIC-7, is none the less one in which they are proud to participate; that is, sponsoring and organizing an ACM conference entitled "Society and the Future of Computing '95."

Date of conference: June 11-14, 1995

Place: Tamarron Lodge, Durango, Colorado

Goals for Society and the Future of Computing

As our national research community responds to new national needs, our society needs a vigorous and open discussion about the social goals of computer science research and applications.

The end of the Cold War has changed the set of challenges facing the United States and its science and technology community. This conference will provide a forum in which to share, explore, and demonstrate the responsible use of advanced scientific computing and National Information Infrastructure (NII) program technologies for the benefit of diverse communities. The conference will also help to articulate novel research directions that advance computer science in ways that have high social benefits.

Organizing Conference Sponsors

This conference is an initiative of the U.S. Public Policy Committee of the Association for Computing Machinery (USACM), sponsored and organized by the CIC-7 group of Los Alamos National Laboratory in cooperation with the University of Maryland Human-Computer Interaction Laboratory and the ACM special interest groups SIGCAS, SIGCHI, SIGSOFT, and SIGCAPH.

Additional Conference Sponsors

Generous support for this conference has been provided by the following additional sponsors:

- Apple Computer, Inc.,
- Cray Research, Inc.,
- IBM POWER Parallel Division, and
- MCI Government Systems.

(Note: Others are expected.)

Who Should Attend

This conference addresses a wide range of fields. Professionals from government, academia, and commerce will benefit from the innovative proposals for research and application. Computer scientists, commercial developers, government information specialists, research managers, directors of advanced technology, community planners, civic leaders, educators, vendors, and anyone interested in computing's social impact and NII technologies can contribute to the discussions that are likely to shape some of the future directions of these themes.

Relevant research areas include advanced networking, human-computer interaction, multimedia, wide-area distributed computing, computer supported cooperative work, the design process, and integrating heterogeneous systems. Relevant applications include education, medicine, digital libraries, civic networking and teledemocracy, electronic commerce, community networking and economic development, computing from the home, and intercommunity sharing of resources, among others.

Conference Participation

In a retreat environment, invited speakers, panel organizers and panelists from academia, industry, and government will be joined by 30-50 poster presentations. This is an open call for participation.

We expect 30-50 posters to be displayed at the conference, and there will be two program sessions in which attendees will have the chance to discuss posters with the poster authors. Posters can include live demos! Each poster entry will have a large conference poster board and a table on which to display the work. Ethernet access to the Internet will be provided for those who wish to include a live demo.

If your work is in any way related to the themes of this conference, you are encouraged to come share your ideas in the form of a poster presentation at the conference. The conference registration booklet details how you can submit your poster abstract describing your work and indicating the social impact of the work and its application to real-world problems.

Spaces for poster sessions are filling up quickly. If you are interested in developing a poster presentation please contact the conference poster coordinator ASAP. A few spaces are still available but you must act soon.

If you have questions regarding any aspect of poster participation in the conference, please contact the conference poster coordinator, Douglas Schuler, 206-865-3832, douglas@scn.org.

The conference will be limited to 250 professional and 30 student attendees. Early registration is highly recommended.

Conference Structure and Speakers

The program begins Sunday evening and continues through Wednesday afternoon. Monday and Tuesday afternoons include poster sessions in addition to the invited speaker sessions. Some sessions are panels while others present a series of noted speakers. The following is a preliminary list of participants; the full list of speakers and panelists is still developing (listed in alphabetical order):

Gary Chapman, University of Texas, Austin

Peter J. Denning, George Mason University

Gwendolyn Doebbert, California Department of Health Services

Troy A. Eid, Executive Director, NIIT

William J. Halverson, Pacific Bell Health Care Market Group

Rob Kling, University of California, Irvine

Dale Lehman, Fort Lewis College

Richard Lowenberg, Telluride Institute

S. Joy Mountford, Interval Research Corporation

Don Norman, Apple Computer, Inc.

Kent Norman, University of Maryland

Roy Pea, Northwestern University

Paul Peters, CNI

Catherine Plaisant, University of Maryland

Peggy Poggio, LLNL and Institute for Telemedicine

Jean Armour Polly, NYSERNet, Inc.

Virginia E. Rezmierski, University of Michigan

Marc Rotenberg, EPIC

Leslie Sandberg, Executive Director, Institute for
Telemedicine

Ben Shneiderman, University of Maryland HCIL

Barbara Simons, IBM; Chair, USACM

Elliot Soloway, University of Michigan

Connie D. Stout, University of Texas TENET

Rolf Wigand, Syracuse University

Paul Young, NSF

Stu Zweben, Ohio State University; President, ACM

Conference Program

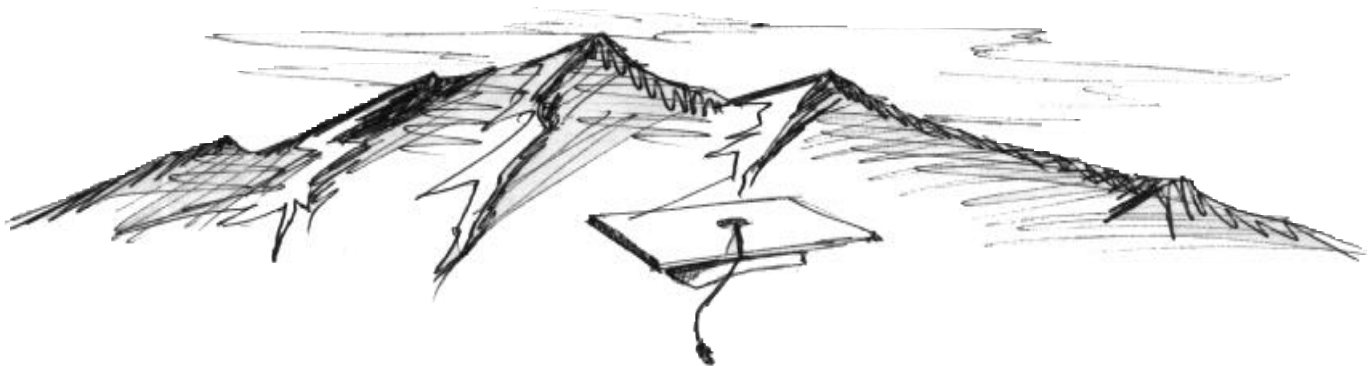
A copy of the preliminary program schedule is included in the registration booklet. However, the following is the working list of session topics:

- Visions of the Future of Society and Computing
- Telemedicine, Medical Imaging, and Roadblocks on the Infobahn
- Home Life on the NII
- Social Needs and the Design Process
- Education Issues and Applications
- Digital Libraries: Information Management and the Citizen of Tomorrow
- Electronic Commerce and the Economy of Tomorrow
- Community Networks and Teledemocracy
- The Role of Government in NII and the Future of Computing
- New Directions for Society and Computing

Student Scholarships

We are encouraging student attendance and participation in the conference by offering extensive scholarships for students whose major field of study is Computer Science or Social Sciences with computer-related emphasis. The conference registration booklet details how you can submit your application for a student scholarship.

Students who participate in the program will also be asked to help with conference logistics.



Conference Location

This conference is being held at the Tamarron Lodge, which is 18 miles north of Durango, in southwestern Colorado. This is a full-service hotel that specializes in conferences and workshops. The beautiful mountain surroundings and the secluded location provide for a unique and productive environment for conference discussions. Hotel and airline reservation information is included in the conference registration booklet. The Durango airport supports regular flights to Denver, Phoenix, and Albuquerque.

Conference Registration Information

To receive a registration booklet including information about student scholarships, poster entries, the conference program, conference fees, the Durango area, travel arrangements, and the Tamarron Lodge, please send your name, US postal address, e-mail address, and phone number to the conference registrar at the following e-mail address:

sfc95@lanl.gov

You may also register for the conference electronically through the conference web pages (see the URL below).

We prefer that you use e-mail to request registration information; however, if you do not have access to e-mail, please send your request to:

SFC '95 Conference Registrar Protocol Office
Attn: Jan Hull, Mail Stop P366
Los Alamos National Laboratory
Los Alamos, NM 87545 USA



Conference Coordinators

Conference Co-Chairs:

Rick Light, LANL, rxl@lanl.gov

Ben Shneiderman, University of Maryland, ben@cs.umd.edu

Program Committee:

Phil Agre, Program Chair, UC San Diego,
pagre@weber.ucsd.edu

Dan Kerlinsky, UNM, dkerlins@medusa.unm.edu

Rob Kling, UC Irvine, kling@ics.uci.edu

Barbara Simons, IBM, simons@vnet.ibm.com

Rick Weingarten, CRA, rick@cra.org

Andy White, LANL, abw@lanl.gov

Student Coordinator: Marsha Woodbury, University of Illinois,
marsha-w@uiuc.edu

Poster Coordinator: Douglas Schuler, Boeing Computer
Services, douglas@scn.org

Conference Coordinator and Registrar: Jan Hull, LANL,
jhull@lanl.gov

Conference Multimedia Specialist: Jim Cruz, LANL,
cruzn@lanl.gov

Conference URL:

<http://www.lanl.gov/LANLNews/Conferences/.sfc95/sfcHome.html>

Rick Light, rxl@lanl.gov, (505) 667-0744
Computing group (CIC-7)

New Networking Document for ICN Users

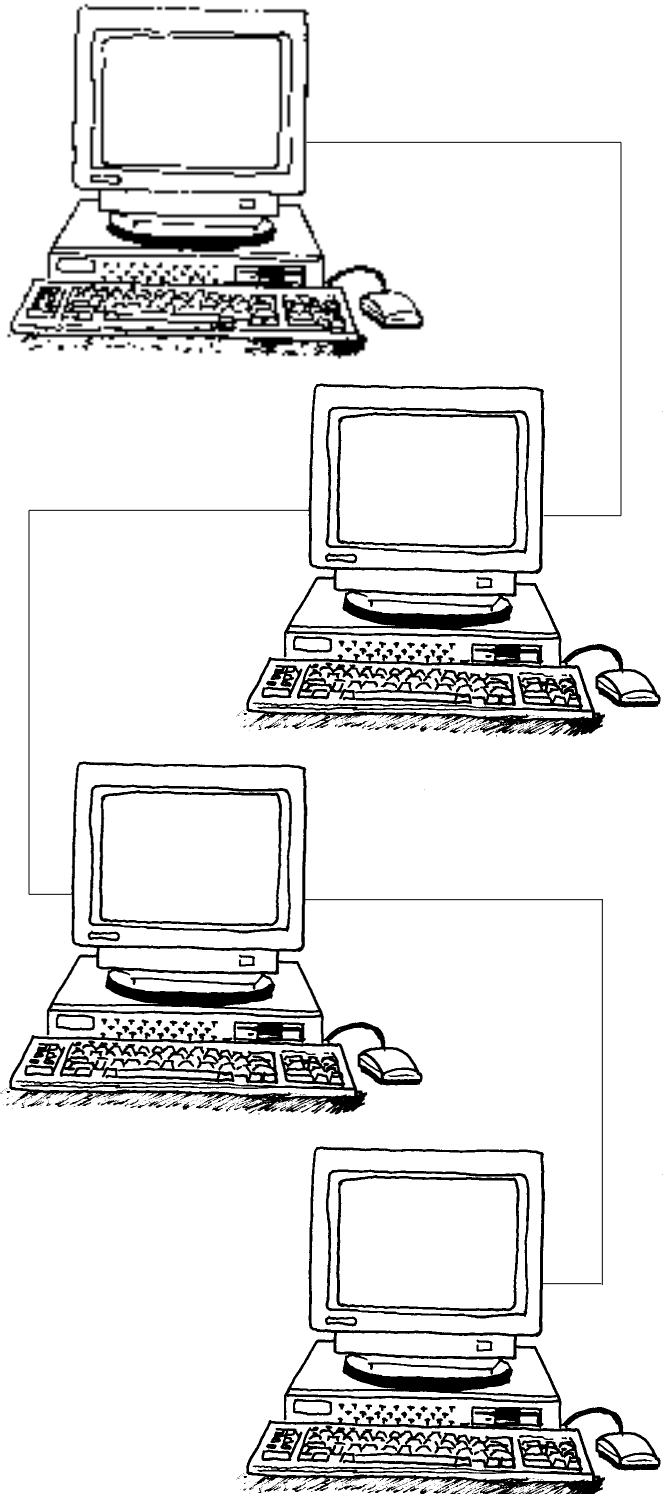
A new publication titled "Network Services User Guide" (CIC-2028) is now available. This document is a compendium of most network services with instructions on how to get and use them. It includes such topics as:

- Explaining Network Connectivity
- Registering for ICN Computing
- Understanding E-Mail Services
- Forwarding E-Mail
- Using Electronic Mail Registry (EMR)
- Changing Personal Information in EMAD and the Phone Book
- Finding E-Mail Addresses
- Making Distribution Lists
- Sending E-Mail to Print and FAX Gateways
- Transferring files with FTP, KERMIT, and ZMODEM
- Authenticating with KERBEROS
- Logging into Remote Hosts with TELNET, RLOGIN, and SLIP
- Accessing Network News
- Searching with Gopher and WorldWide Web
- Outputting to PAGES
- Obtaining OnNet/TCP Network Software
- Configuring Eudora
- Keeping EIS data up-to-date
- Sending E-MAIL to X.400 sites (DOE)
- Converting E-MAIL documents

... and much more

This publication is available both in hard copy (by calling 667-6992) or on-line via gopher (by searching under Computing at LANL/ Documentation).

Ted Spitzmiller, consult@lanl.gov, (505) 665-4444
Customer Service Group (CIC-6)



Everything you need to know about Netscape at LANL

Netscape is a WorldWide Web browser that allows you to access the Web from your desktop computer, whether it's a Mac, a PC running Windows, or one of the many flavors of UNIX currently available.

To use Netscape from your computer you need to be connected to the LANL network via the TCP/IP network protocol. This could be either through an Ethernet connection, ISDN, SLIP (over a modem), or through a MICOM connection. If you don't know whether your computer is connected to the LANL network or not, please ask your local system administrator. Below are answers to some frequently asked questions about Netscape.

1. Does LANL have a site license for Netscape?

No. The Desktop group (CIC-2) has a volume purchase agreement for 1,000 copies, non-platform specific. The difference between a site license and a volume purchase is basically that a site license is free (for the customer) and a volume purchase requires the customer to pay a nominal fee to recoup costs. Under our Netscape Volume Purchase agreement, the cost for Netscape is \$30 per copy. After the first 1,000 have been "sold" we will extend our volume purchase agreement with Netscape Communications.

2. How do I register/receive a copy of Netscape?

You can register your copy (or copies) of Netscape via the Netscape Auto Register page (see the URL at the end of this article) or by calling CIC-2 at 5-4357 and supplying us with your cost center, program code, e-mail address, and the number of copies you wish to register. To receive a copy of Netscape, call 5-4357 and ask for a copy to be mailed to you either through the LANL inter-office mail system or via an attachment-capable e-mail program (e.g., Eudora). You can also get copies of Netscape from a friend as long as you register with us at CIC-2.

3. Do I have to pay even if I already have a copy of Netscape?

Yes. When you first ran Netscape, it asked you to accept certain conditions before running the software. One of the main conditions is that after the 30 day period of evaluation, you not use Netscape for anything other than educational use. Educational use does not include any work at a national laboratory, even though LANL is administered by the University of California. This provision is a direct response from Netscape Communication and we must abide by their require-

ments. By running an unregistered copy of Netscape past the initial 30 days, you are breaking the law no differently than if you were running pirated software on your computer. Please call 5-4357 immediately and register every copy of Netscape that you use. Be legal. Support the process!

4. Is the copy of Netscape that CIC-2 distributes any different than the copy I can download off the Internet?

Yes and No. Currently the copy that we mail out is the same. However, we are currently working on Netscape installer disk sets for the Mac, PC, and UNIX. These sets not only install the software to your machine but will also install the useful helper applications (e.g., Acrobat, sound player, and quick-time/mpeg players) and a built-in pointer that leads directly to the LANL Home Page. In the future, Netscape will not be making its version 2.0 (ETA October '95) and above available to the world for evaluation. But, for now, you'll be getting the exact same thing!

5. How will I be informed when a new version of Netscape has been released?

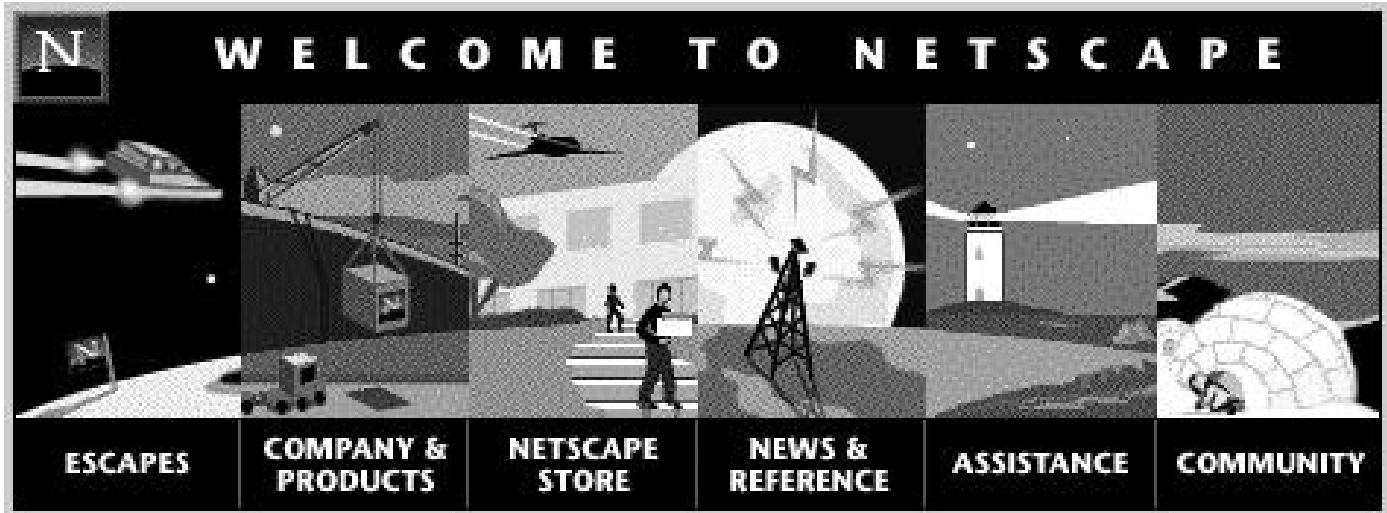
When you call us at CIC-2 and register your copy (or copies) of Netscape, you will be asked for an e-mail address. When new versions are supplied to us by Netscape Communications, we will do a mass mailing to all of the people who have registered. We will also supply information in that mailing about how to get the latest version.

6. Where can I get Netscape technical support?

You can get technical support for Netscape by calling the CIC-2 help line, 7-HELP, and reaching a software technician for the platform you are using. All of our software technicians are trained in Netscape and if they don't have an answer to your question, they can call upon the support staff at Netscape Communications directly. We have purchased a support agreement with Netscape Communications for this purpose. This is another way your \$30 fee per copy is being put to good use.

7. How do I get Adobe Acrobat to speak to Netscape? (How do I access the DOE On-line Orders?)

This is one of our most common calls. Many people utilize the DOE/INDEX system called Explorer to access the DOE on-line orders. To do this, they must have both Netscape and Adobe Acrobat and make certain settings within Netscape to allow both programs to speak to one another. Please reference the CIC-2 Netscape Acrobat document by Andrew Collins for more information. Also, at the end of this article note the URL reference which will lead you to information about accessing the Acrobat/Netscape instructions.



The New Netscape Home Page

8. Does the Netscape volume purchase mean that LANL is officially supporting Netscape as the only web browser?

No. It's very important for us to stay on top of the fast pace change taking place in the world of web technology. It's quite possible that you'll see many commercial web browsers on the CJ Enterprises contract or even as a site license or volume purchase from CIC-2 in the future. For now, we ask that you use Netscape because we cannot provide you with the same level of support for non-licensed/non-volume purchased programs such as NCSA Mosaic, Winweb and Macweb, or Enhanced Mosaic.

9. What's the difference between Netscape and NCSA Mosaic?

Mosaic, generally, is difficult to install and configure, crashes regularly, and won't print. Netscape is simpler to install, faster, prints nicely, and since it's a commercial product, and we bought it, we get support from the company! Mosaic under UNIX is much better than the versions for PC and Mac.

10. Who is the Netscape "License" Administrator?

The administrative point of contract for Netscape is Raven Zachary. Please don't call him for technical support or basic questions. We have an excellent technical support staff that will help you with all of your technical problems (call 7-HELP). Please feel free to contact Raven if you have specific issues dealing with LANL's relationship to Netscape Communications.

This article and relevant links (including the Netscape/Acrobat instructions) can be reached via the web through the following URL:

<http://www-cic2.lanl.gov/netscape.html>

Andrew Collins, 667-5884, apec@lanl.gov
Desktop group (CIC-2)

Raven Zachary, 667-5884, raven@lanl.gov
Desktop group (CIC-2)

LANL Research Library Training

The LANL Research Library provides training for its users, free of charge, for the specialized databases owned by the Library. Please call the Research Desk at 7-5809 or e-mail ref@lanl.gov for reservations, for a special session or tour, or for more information. Sessions begin at times and dates indicated below and are held in Room 111G of the Library. Each session is 30 minutes, except the Gopher class which is 2 hours.

Date/Time	Subject Matter
4-4-95/1:00	Science Citation Index
4-5-95/11:00	MELVYL: University of California databases
4-6-95/10:00	Information Resources on the Internet via Gopher
4-11-95/1:00	Finding Company Information
4-13-95/10:00	Information Resources on the Internet via Gopher
4-18-95/1:00	Code of Federal Regulations
4-19-95/11:00	MELVYL: University of California databases
4-20-95/10:00	Information Resources on the Internet via Gopher
4-25-95/1:00	Worldwide Standards Database
4-27-95/10:00	Information Resources on the Internet via Gopher



Lab-Wide Systems Training

The Customer Service Group (CIC-6) offers training for users of Laboratory information systems. The CIC-6 courses offer training for a variety of personnel including property administrators, group secretaries, training coordinators, budget analysts, group leaders, or anyone needing to access training records, property records, costs, employee information, travel, chemical inventories, etc. Refer to the table below and on the following pages for specific information about courses currently offered.

Course Registration

You must have a valid "A" or "U" level ICN password before taking any of the courses shown in the table. To register for a course, call CIC-6 Training, Development, and Coordination section at 667-9444 or send e-mail to classes@lanl.gov. You will be sent a registration form to be completed and returned.

Course Title	Date	Time	Cost	Course Number
ALL-IN-ONE Basic Electronic Messaging	4/19/95	1:30 - 5:00	\$410	Course #6882
Participants receive hands-on instruction to create, read, and print electronic mail. Participants also learn how to edit mail, create distribution lists, send mail to a FAX machine, and grant mail access to others. Prerequisite: an ICN password and an account on the OFVAX.				
Automated Chemical Inventory System (ACIS):	Scheduled Upon Request		\$410	Course #7480
Participants receive hands-on instruction to update the status (end-user, location, quantity) of chemical containers. Participants will also learn to generate chemical inventory reports by chemical name, end-user, location, and organization.				
Budget Computing System (BUCS):	4/10/95	1:30 - 5:00	\$410	Course #3527
This training is an introduction to the Budget Computing System (BUCS). Students practice generating "quick reports" and reports requiring parameter files. An introduction and demonstration of (no "hands-on") allocating and forecasting procedures are given during the three-hour session.				
Directory Information System (DIS):	Scheduled Upon Request		\$410	Course #7072
Lab-wide customers responsible for maintaining the Laboratory directory in the Employee Information System will receive hands-on instruction to update Laboratory employees, update and add non-Laboratory employees, retrieve location and address information for any employee, and print reports.				
Electronic Mail Overview	4/7/95	8:30 - 9:30	No Fee	Course #9757
This free introductory class is an overview of electronic mail at the Laboratory. In this 90-minute class, the instructor demonstrates how to create and send an electronic message using ALL-IN-1 electronic mail and Eudora electronic mail. The instructor will discuss the advantages of using electronic mail and the types of electronic mail that are supported by CIC Division. This is not a hands-on class.				
Employee Development System - Basic Training (EDS I):	4/5/95	8:30 - 12:00	\$410	Course #5289
The course provides hands-on instruction to request course enrollment, use the on-line course catalog, retrieve training transcripts, and assign EDS authorities. The student will learn to create courses, add students to the courses, and generate several training reports.				
Employee Development System - Training Plans (EDS II):	4/19/95	8:30 - 12:00	\$410	Course #7155
Participants receive hands-on instruction to create and maintain training plans, assign assignment codes, and generate training plan reports. Attendees must have prior training in the Employee Development System (course #5289).				

Course Title	Date	Time	Cost	Course Number
Eudora Electronic Mail for Macintosh Users	4/6/95	8:30-12:00	\$410	Course #9762
	This class is a hands-on class that teaches the participant how to use Eudora software to create, send, receive, and edit electronic mail messages. In addition to these procedures, the participant will learn what related settings mean and how to configure the system to meet his or her individual needs.			
Facilities Project Information/Work Orders (FPI/WO):	Scheduled Upon Request		\$410	Course #6996
	Lab-wide users with a need to view the status of work orders and tickets in their organizations will receive hands-on instruction to request, print, and review work order, ticket and project summary information reports.			
Financial Management Information System (FMIS):	4/20/95	8:30 - 12:00	\$410	Course #8338
	Participants receive hands-on instruction to "explode" and "transfer" through the costs, allocations, and outstanding commitments screens. In addition, participants will create/review reports, access the Information Manager Utility for printing reports, and learn how to assign authorities in the system.			
Hazardous Materials Transfer Tracking System for Radioactive Material (HMTTS/NRAM):	Scheduled upon request		\$410	Course # 7907
	Participants receive hands-on instruction to create, update, and print the non-RAM Hazardous Materials Transfer Form (HMTF). Attendees must have completed "Completing the HMTF for Non-RAM," course #7512, sponsored by HS-8.			
Hazardous Materials Transfer Tracking System for Radioactive Material (HMTTS/RAM):	Scheduled Upon Request		\$410	Course #7993
	Participants receive hands-on instruction to create, update, and print the Radioactive Materials Transfer Form (RMTF). Information about the non-RAM Hazardous Materials Transfer Form (HMTF) is included. This course is appropriate for people who fill out both RAM and Non-RAM forms. Attendees must have completed "Completing the RMTF," course #7517, sponsored by HS-8.			
Introduction to Lab-Wide Systems:	4/26/95	8:30 - 10:30	No Fee	Course #2900
	This introductory class is an overview of Lab-wide information systems. During the 90 minute session, students learn how to become Lab-wide system users and access those systems. Several Lab-wide systems are demonstrated and their functions are discussed. Optional hands-on exercises are offered at the end of class.			
Lotus Notes Basic Concepts	4/18/95	8:30-12:00	\$410	Course #9917
	This class provides hands-on instruction for Mac and PC users to use Lotus Notes software to create and send e-mail memos; fax documents; search databases; create filters, nicknames, banners, and doclinks; set defaults; and use multiple address books. In addition, participants learn how to use the memo, meetings, and discussion databases.			
On-Line Forms	4/13/95	8:30 - 12:00	\$410	Course #9756
	Participants will learn to use Mosaic software to access Lab-wide information and forms. Using Jetform Filler software, participants will access, complete, and print forms such as the "ICN Validation Request," "Visitor Request for Unclassified Visits to Security Areas," and "Request for Quotation."			
Property Accounting, Inventory, & Reporting (PAIRS):	Scheduled Upon Request		\$410	Course #7411
	This course is for Property Administrators (PA's) and Lab-wide customers with a need to view property record information. PA's receive hands-on instruction to update property element and location information. All participants will receive hands-on instruction to generate and print a variety of property reports. The BUS-6 Property Administrators course is recommended before PA's attend this course.			

Course Title	Date	Time	Cost	Course Number
Property Accounting, Inventory, and Reporting System (Advanced)	4/12/95	8:30–12:00	\$410	Course #9918
This course will include a refresher of PAIRS, advanced techniques and tips, explanation of the notification system, and report capabilities. Swap Shop, Loan Out information, and support tables will be discusses. Participants should already have a basic understanding of and know how to use PAIRS.				
Secretarial/Contract Services (SE):	Scheduled Upon Request		\$410	Course #7481
This class provides hands-on instruction for creating secretarial requests for temporary services, entering time for contract employees, and creating reports using the Information Manager Utility. The students will also learn how to review notifications and approve attendance. A training database will be used for the class.				
Signature Authority System (SAS):	4/11/95	1:15 - 4:45	\$410	Course #7582
Managers or their designees receive instruction to assign, view, and change signature authorities (purchase request, chemical purchase, and handling hazardous material). Participants will also learn how to generate and print authority reports for their organizations.				
STORES:	Scheduled upon request		\$410	Course #3529
Participants receive hands-on instruction to search for an item in the on-line catalog by key word, part number, or exact name. Participants learn how to select items from the catalog, and place, change and cancel an order. Several methods for reviewing orders are also taught including reviewing an order in detail, scanning all orders, and reviewing back-orders.				
Travel Reporting Information Planning System (TRIPS):	4/19/95	8:30 - 12:00	\$410	Course #4369
Class participants receive hands-on instruction to prepare travel requests (TRs) on-line and learn the print, revise, and cancel options. The participants also learn how to use the on-line approval function. The various reports available in TRIPS-II are reviewed.				

CIC Computing Classes

CIC offers a variety of computing courses for the professional development of Laboratory employees. The courses listed in Table 1 will meet at the time and the date shown. Time and date for the courses in Table 2 are not known at this time.

Course Registration

To register: (1) check the box beside the appropriate course, (2) complete the Enrollment Information section below, and (3) follow the mailing instructions on the back of this form. Submittal of a Course Registration form does not guarantee participation in an advertised class, but it is the only way to get into the queue for notification of upcoming classes. Classes are conducted in a secure area unless noted; uncleared participants require escorts. Call the Training Coordinator at 667-9399 for more information.

Table 1 Courses with confirmed time and date

COURSE TITLE	INSTRUCTOR	COST	DATES/TIME
<input type="checkbox"/> C Programming (Advanced)	Michael Chase, Boulder Software Group	\$1000-\$1400	4/10/95 through 4/14/95
<input type="checkbox"/> Perl Programming: Beginning/Intermediate	Tom Christiansen	\$250-\$400	Week of June 5: First Day
<input type="checkbox"/> Intermediate/Advanced	"	"	Second Day
<input type="checkbox"/> Hands-on Laboratory	"	"	Third Day
<input type="checkbox"/> Solaris 2.X Network Admin. (Advanced)	John Nouveaux, SMI	\$1500-\$1800	4/17/95 through 4/21/95

Table 2 Courses with time and date to be arranged (TBA)

COURSE TITLE	INSTRUCTOR	COST	DATES/TIME
<input type="checkbox"/> HP-UX System Administration (Customized for LANL)		\$1750-\$2650	TBA (8:30-4:30 4-5 Days)
<input type="checkbox"/> Solaris 1.X Advanced System Administration	John Nouveaux, SMI	\$1500-\$1800	TBA
<input type="checkbox"/> UNIX (Beginning)	Ted Spitzmiller & Jeffrey Johnson	\$810	TBA

Note: Detailed course descriptions are provided on the following pages.

Enrollment Information

Name _____

Phone _____ Z-Number _____

Group _____ Mail Stop _____

Program Code* _____ Cost Code* _____

Group Leader Signature _____

**Enter program code and cost code for all courses. If you need to withdraw from a class fewer than 5 working days before the class is scheduled to begin, your group will still be charged. Substitutes may be sent, but please let the CIC Division Training, Development, and Coordination Office (667-9399) know who your substitute will be.*

Do Not Staple
Fold on This Line First



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES

BUSINESS REPLY MAIL

FIRST-CLASS MAIL PERMIT NO. 88 LOS ALAMOS NM

POSTAGE WILL BE PAID BY THE ADDRESSEE

MAIL STOP B296
CIC DIVISION TRAINING DEVELOPMENT
AND COORDINATION TEAM
LOS ALAMOS NATIONAL LABORATORY
PO BOX 1663
LOS ALAMOS NM 87544-9916



Do Not Staple, Seal with Tape
Fold Here

C Programming (Advanced)

Location: C-Division Classroom, TA-3, SM-200, Room 210 (secure area).

Prerequisite(s): Useful skills and experience with the C Programming language.

Enrollment: Minimum 10/Maximum 16.

Topics: Data Structures, Algorithms, and OOP; An Advanced Clinic for C Programmers; The ANSI C Recommendation X3.159; C and ANSI C War Stories; The Data Structure and the Assessment of Algorithms; Arrays; Structures; Unions; Stacks; Queues; Linked Lists; Recursive Functions; Binary Trees; Hashing; File Organizations Using the C Runtime Library; Standard Interprocess Communication Mechanisms; An Introduction and Overview of AT&T's C++ 3.0; Appendix: references for periodicals, journals, and texts.

HP-UX System Administration (Customized for LANL)

Location: CTI Conference Room, TA-3, SM-200, Room 116 (Open Area).

Prerequisites: Useful UNIX skills and system administration understanding.

Enrollment: Minimum 10/Maximum 16

Topics: To be developed by using modules from 3 or 4 different HP courses.

Note: HP will supply 8 HP systems and associated software for laboratory practice.

Perl Programming

Location: All Perl classes will be held in the CTI Open Classroom; TA-3, SM 200, Room 115 (Open Area).

Description: Perl is a publicly available and highly portable interpreted programming language. It occupies the niche between shell and C programming. Perl Programming will be featured in three separate classes as described below.

Perl Programming Beginning/Intermediate

Prerequisite: Competent C programming skills.

Enrollment: 20

Topics: Syntax and Semantics; Data Types; Operators, Control Flow, Regular Expressions, and I/O Facilities; and the Perl Debugger.

Perl Programming Intermediate/Advanced

Prerequisite: Completion of the Perl Beginning/Intermediate level class or comparable skills using the Perl programming language.

Enrollment: 20

Topics: Packages to Create Your Own Libraries; Pointers to Synthesize Complex Data Types; Bit Vector Data Type and Select System Call; Using h2ph and c2ph to Convert and Access code; Socket Programming; the ioctl and fcntl System Calls; Exception Handling; Networking Topics; and Database Topics.

Perl Programming Hands-on Laboratory for Beginning through Advanced

Prerequisite: Completion of the above Perl classes or equivalent skill.

Enrollment: 20

Description: This class provides an opportunity for individuals who participated in this round of Perl programming classes (or former participants) to hone the acquired information with practical exercises.

Solaris 1.X Advanced System Administration

Location: CIC-Division Classroom, TA-3, SM-200, Room 210 (secure area).

Prerequisite: Solaris 1.X System Administration or equivalent experience.

Enrollment: Minimum 10/Maximum 12.

Topics: TCP/IP networking model's major protocols; Monitoring network traffic; Monitoring/controlling Address Resolution Protocol (ARP) cache; Setting up/configuring/managing a Sun router and subnets; Pros and cons of TCP versus User Datagram Protocol (UDP); Configuring/maintaining Remote Procedure Call (RPC)/based files and applications; Managing client-server communications; Analyzing network configurations for performance tuning; Assessing disk loads for improved I/O throughput; Modifying file system parameters for increased disk space utilization and performance; Analyzing Virtual Memory, paging, swapping, RAM and swap space usage; Evaluating NFS statistics and reconfiguring for increased performance; Tuning kernel parameters to optimize buffer cache usage; Creating and adding a custom NIS map to an existing domain; Setting up and maintaining a DNS domain.

Solaris 2.X Network Administration (Advanced)

Location: CIC-Division Secure Classroom (TA-3, SM-200, Room 210).

Prerequisite: Solaris 2.X System Administration or equivalent skill.

Enrollment: Minimum 10/Maximum 12.

Topics: Analyzing and tuning your network configuration for optimal performance; Installing an Internet network router and enabling subnetting; Identifying and using network troubleshooting tools; Installing UUCP between existing Solaris 2.X networks; Configuring sendmail and using advanced name service features; Using network application tools for system installation and configuration.

UNIX (Beginning)

Location: CIC-Division Classroom, TA-3, SM-200, Room 210 (secure area).

Prerequisite: Familiarity with a UNIX workstation.

Enrollment: Minimum 8/Maximum 10.

Topics: Overview of the Workstation environment; Getting Started; The UNIX File System; Manipulating Files; Customizing Your Environment; The C-Shell; Editing and Writing with vi; Using the Network; Discussing NFS and NIS; Using basic system status commands; Startup and shutdown procedures; Using tar.

*Beginning UNIX—
This course has
been restructured to
address generic
UNIX information.
There is no longer a
focus on Sun
operating systems
and tools.
Additional topics are
being added. This
course will probably
be offered on a
quarterly basis.*

ICNchanges Contents

Change Control for April 1995

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Schedule for Change Control

Date	Activity
April 4 (First Tuesday)	New or changed software is available in experimental (X) files on CFS for testing. This initial testing period is for uncovering problems in the software before the software is put into production. If you find a problem, please call the ICN Consulting Office at (505) 667-5745.
April 11 (Second Tuesday)	The changes become production version on <ul style="list-style-type: none"> Machine rho (UNICOS) Distributed processor beta (ULTRIX) Distributed processor ccvax (VMS)
April 18 (Third Tuesday)	If no problems are reported to the ICN Consulting Office (505) 667-5745, changes are installed on <ul style="list-style-type: none"> Machine gamma (UNICOS)
	The Department of Energy (DoE) has frozen software changes to the machines in the secure network. X Files and executables will be placed on CFS as usual. Users are encouraged to test the X Files. Executables will be installed in a staggered fashion when the freeze is lifted—date unknown. <ul style="list-style-type: none"> Machines delta, epsilon, and zeta

Note: A stop sign in front of a title is significant:



= incompatible changes; please read!

Changes

AUTOSUM (UNICOS)

Function Retrieves accounting and utilization information from CCF accounting databases.

Change A new system-selection criterion has been added to enable retrieval of T3D-generated charges; this criterion is "t3d." The sole content of a selected "t3d" charging record is a field that contains the product of the number of t3d PE's times the cpu time (for one PE). To display the contents of such fields, use the display option

pe-hrs (may be abbreviated as **pe**)

This option choice is automatic if AUTOSUM's default display is chosen.

New headings are available for displaying data generated by the open IBM cluster (system=**clst**). These are invocable as

m-mbhrs (may be abbreviated as **clmem**)

d-mbdays (may be abbreviated as **cldisk**)

The first heading refers to the product of accumulated memory residence time and the executable's size - the units are megabyte-hours. The second heading refers to the accumulated products of disk residence time and disk file size - the units are megabyte-days. Again, both option choices are automatic if AUTOSUM's default display is chosen.

Responses **q** and **quit** are now acceptable responses to the prompts for selection, break, and display criteria. These responses cause AUTOSUM to terminate immediately with exit status **0** (zero).

X File Access On CFS as: **/ccx/unicos/bin7/autosumx** for Machine Rho.

On CFS as: **/ccx/unicos/bin7c/autosumx** for Machine Gamma.

On CFS as: **/ccxs/unicos/bin7/autosumx** for Machines Delta and Epsilon.

On CFS as: **/ccxs/unicos/bin8/autosumx** for Machine Zeta.

Online Documentation To display the man page (dated 4/95), enter: **man autosum**

COST (UNICOS)

Function	Produces a monthly or yearly summary of CCF charges for a specific user, group, program, division, or charge code.
Change	<p>COST has added "t3d" to the list of systems examined for charges. Also, unless the monthly data file being used by COST is prior to October 1990, cost will not include charges for the "nos" system.</p> <p>COST now allows the current month to be supplied as a date. This will cause a return of all charges from month-beginning to present, but only those charges generated in the partition in which cost is running.</p>
X File Access	<p>On CFS as: /ccx/unicos/bin7/costx for Machine Rho.</p> <p>On CFS as: /ccx/unicos/bin7c/costx for Machine Gamma.</p> <p>On CFS as: /ccxs/unicos/bin7/costx for Machines Delta and Epsilon.</p> <p>On CFS as: /ccxs/unicos/bin8/costx for Machine Zeta.</p>
Online Documentation	<p>To display the man page (dated 10/93) enter: man cost</p> <p>To display the built-in help package, enter: cost -h</p>

FRED (DEC Alpha under OSF/1)

Function	A text line editor.
Change	Fred is now available for the DEC Alpha running OSF/1.
X File Access	On CFS as: /ccx/alpha_osf/fred.tar for DEC Alpha OSF/1 machines.
Online Documentation	To display the man page (dated 4/93), enter: man fred
Printed Documentation	<p><i>FRED Manual</i> (CIC#276, 4/93)</p> <p>ASCII and PostScript documents are also available on gopher.lanl.gov under menu items, LANL COMPUTING INFORMATION, DOCUMENTATION.</p>

GETCHARGE (UNICOS)

Function	Prints the Charge Code (program code and cost code) for any process.
Change	This is a new utility being added to the local UNICOS environment. GETCHARGE allows the user to display the charge code setting for any process; it is usually used without an argument to determine the charge code for the current session.
X File Access	On CFS as: /ccx/unicos/bin7/getchargex for Machine Rho. On CFS as: /ccx/unicos/bin7c/getchargex for Machine Gamma. On CFS as: /ccxs/unicos/bin7/getchargex for Machines Delta and Epsilon. On CFS as: /ccxs/unicos/bin8/getchargex for Machine Zeta.
Online Documentation	To display the man page (dated 4/95) enter: man getcharges

Network Services Information

This section provides information and a record of changes to the software and hardware that make up the ICN network and the services it provides. If you detect a problem, please call the ICN Consulting Office at (505) 667-5745, or send electronic mail to **consult@lanl.gov**.



LANL World Wide Web Server

The main LANL World Wide Web Server, **www.lanl.gov**, service is moving to a new platform and will be changing significantly in appearance and organization over the next few months. The changes will be noted on the LANL Home page **http://www.lanl.gov/** as they become known.

Documentation

New and Updated Man Pages

The following online information has been added or updated.

UNICOS Man Pages

To access a UNICOS man page, enter: **man** *command_name*, where *command_name* is the name of the command, library, routine, or utility whose man page you wish to view.

Man Page	Description
autosum	AUTOSUM is an interactive data inquiry tool for retrieving and displaying monthly accounting information about various Integrated Computing Network resources from the Central Computing Facility (CCF) databases.
getcharge	Prints the LANL charge code (program and cost code) for the given process ID, or for current session if no PID is given.

To create ASCII files of the UNICOS man pages, use the following command to remove the special characters for bold and underlining:

UNICOS 7.0 and 8.0: **man** *command_name* | **col -bx** > *filename*

Barbara Ritchie (**bxr@lanl.gov**), (505) 667-7275
Communication Arts and Services (CIC-1)

Information About Change Control

ICN Change Control is the set of procedures that coordinates changes in the ICN to ensure quality control and smooth operation and to avoid introducing additional problems. In an environment as dynamic as the ICN, control must be imposed on the scope and timing of changes that involve many components. Please report any problems as soon as they occur by calling the ICN Consulting Office at (505) 667-5745.

The following CFS nodes are used for software that is maintained or announced through Change Control procedures. The files under **/ccx(s)/unicos** are deleted the last Friday of each month because these experimental versions become the production versions on all machines by the third Tuesday of the month. The other nodes keep the most recent versions of their respective software.

Open Network

Non UNICOS	/ccx/platform*/filename
UNICOS	/ccx/unicos/type**/filename
	examples: /ccx/mac/ppages
	/ccx/unicos/bin7/ppagesx
	/ccx/unicos/ubin7c/tedix
	/ccx/vax/ppages.bak

Secure Network

UNICOS	/ccxs/unicos/type**/filename
	example: /ccxs/unicos/lib8/libcftlib.a

*Where *platform* is:

alpha_osf	tar files for DEC Alpha OSF/1 machines.
alpha_vms	backup save sets for DEC Alpha VMS machines.
convex	tar files for Convex machines.
dec_risc	tar files for DEC RISC workstations.
dos	executables for PC/DOS machines.
hp	tar files for Hewlett-Packard workstations.
ibm_rs6000	tar files for IBM RS6000 workstations.
mac	binhex (.hqx) or MacBinary (.mbin) files for Macintosh computers.
next	tar files for NeXT workstations.
sgi	tar files for Silicon Graphics workstations.
solaris	tar files for Sun Solaris workstations.
sun	tar files for Sun workstation.
ultrix	current executables to test on Beta.
unicos	executable X files for current Change Control cycle.
vax	backup-save-sets for VAX/VMS systems.

**Where *type* is:

bin	binary file.
lib	library.
#	operating system (OS) version.
u	user-supported.

If problems are discovered during the cycle, defective hardware or software is corrected, replaced, removed, or backed off.

Online Information

You can access complete online information about Change Control by using the Internet Gopher Server. For more information on how to connect to the Gopher Server, see the article "Internet Gopher Delivers Information" in the Feature Articles section of the September 1993 News. You may also contact the Customer Service Center at (505) 665-4444 or e-mail cichelp@lanl.gov.

After you connect to the Gopher Server you will see a menu of options. Select the following series of options from the **gopher** menu:

- Computing at LANL
You will get a new menu.
- BITS: ICNchanges
You will get a new menu. Select the next menu that reflects your needs.
 - Keyword Search of all ICNchanges (?)
 - Current (*month year*)
 - 1995 Archives
 - 1994 Archives
 - 1993 Archives
 - 1992 Archives
 - 1991 Archives
 - 1990 Archives
- Select "Current (*month_year*)"
to get a list of the articles for the current month's Change Control.
You will get a new menu. Select the next menu that reflects your needs.
 - BITS: ICNchanges - ASCII Version
 - BITS: ICNchanges - Acrobat Version
 - BITS: ICNchanges - PostScript Version

Barbara Ritchie (bxr@lanl.gov), (505) 667-7275
Communication Arts and Services (CIC-1)

MAY DEADLINE

The deadline for articles for the May 1995 Change Control is 8:00 a.m. Monday, April 17, 1995. Please submit items to bulletin@lanl.gov.



CCF Machine Availability and Downtime

Machine Name(s)	Machine Type	Operating System	Security Partition	System Availability (Feb. 1995)	Scheduled Downtime*
delta	CRAY Y-MP8/8-128	UNICOS 7.0	Secure	98.8%	April 12 — 0400-0700
epsilon	CRAY Y-MP8/8-128	UNICOS 7.0	Secure	99.2%	April 26 — 0400-0700
rho	CRAY Y-MP8/8-64	UNICOS 7.0	Open	99.5%	April 26 — 0400-0700
zeta	CRAY Y-MP8/2-64	UNICOS 8.0	Secure	99.6%	April 5 — 0400-0700
gamma	CRAY Y-MP/M98-82048	UNICOS 7c	Open	99.5%	April 5 — 0400-0700
tau**	CRAY T3D MC256-16	MAX 1.2	Secure	100%	April 12 — 0400-0700
	CRAY Y-MP4I/464-2	UNICOS 8.0			
pi**	CRAY Y-MP EL92/1-256	UNICOS 8.0	Open	99.3%	
cluster	IBM Workstation Cluster	AIX	Open		
beta	VAX 6320	ULTRIX	Open		
CCVAX	VAX 6410	VMS	Open		
OFVAX	VAX 6410	VMS	Open		
canyon	Thinking Machines Corp. CM-200	SunOS	Secure		
tres	Thinking Machines Corp. CM-200	SunOS	Secure		

* Additional downtime for the Cray machines may occur as a result of Network Dedicated Systems Time (NDST). The schedule for possible NDST is from 0600-0700 Mountain Time, Monday through Friday. Should NDST become necessary, a message listing the scheduled downtime will be broadcast on the applicable machines before the actual downtime occurs. For additional information contact the shift supervisor at (505) 667-4584. All times listed are Mountain Time.

** Access restricted.

Questions About Announced Changes?

Notice of all scheduled downtime will be broadcast on the machine before the downtime. For up-to-date machine status and scheduled downtime call: CCF Status Message (505) 667-5588.

Publication Information

ICNchanges Editor/Publication Coordinator
Barbara Ritchie (CIC-1)
Mail Stop B295
Telephone (505) 667-7275

Change Control Coordinator
Marjorie Johnston (CIC-6)
Mail Stop B252
Telephone (505) 667-7309

All software listed below, except Netscape, is available at no cost (Netscape costs \$30.00). To order software, fill in the blanks below, check the software you would like to have, and mail this form to

Free Software

Desktop Support Center (CIC-2) MS D445

Name _____ Group _____

Mail Stop _____ Z-Number _____

Cost Code _____ Program Code _____ Account Package _____

Please send the correct number of replacement high-density diskettes with your request. If you don't send any disks, we will send you the software with the understanding that you will return the diskettes after you copy the software.

_____ **FREEWARE DISKETTE** (Include one high-density diskette.)

This diskette contains the following software:

Alias Finder: Quickly finds the original of an alias when the alias is dragged on top of the Alias Finder icon.

Disinfectant: Virus protection for the Macintosh.

Disk Copy: Creates copies of diskettes using one floppy drive.

SCSI Probe: Shows connected devices on the SCSI bus.

StuffIt Expander: Unstuffs BinHex 4.0, StuffIt, and other types of compressed files.

Note: The following two applications come with System 7.5:

Extensions Manager: Allows selection of which INITs to load.

SuperClock: Puts a clock in the upper right corner of your Macintosh.

_____ **INTERNET DISKETTE** (Include one high-density diskette.)

This diskette contains the following software:

Fetch: Easy-to-use for FTPing files from FTP archives.

NCSA Telnet: Telnet application

TurboGopher: Gopher client application for the Macintosh.

StuffIt Expander: Unstuffs BinHex 4.0 and other types of compressed files.

_____ **MACINTOSH SYSTEM 7.5** (Include nine high-density diskettes.)

Indicate number of systems on which this System 7.5 will be used: _____

Note: System 7.5 Manuals are available for \$7.50. Enter your accounting information above. CD-ROM version available for free loan. Call 5-1361 for details.

_____ **SYSTEM 7.5 POWERTALK AND QUICKDRAW GX.** (Include four high-density diskettes.)

Note: We recommend that you do not install these parts of System 7.5 unless you have a specific need to do so.

_____ **SYSTEM 7.5 UPDATE, VERSION 1.0** (Include 5 high-density diskettes.) Updates System 7.5, fixes some bugs, speeds up file-sharing, new printer software, etc. Includes Network Software Installer 1.5.

_____ **NETSCAPE** (Include one high-density diskette.)

Netscape is a commercial web browser. Even though it is available on the Internet, it is not free. CIC-2 has bought 1,000 copies of Netscape for a cost of \$30.00 per copy. Enter your accounting information above. We will include a license certificate indicating your purchase. If you do not need a diskette copy of Netscape, check below.

_____ Do not need a diskette. I already have a copy and just need the license.

_____ **ACROBAT READER** (Include one high-density diskette.)

Multi-platform document viewer. Used with viewing "pdf" documents on the LANL web server and fast becoming an Internet standard.

_____ **ACROBAT EXCHANGE** (Include four high-density diskettes.)

An enhanced version of the Acrobat Reader. Allows you to create and annotate "pdf" files as well as read them. Note: CIC Division bought a license of 1,000 copies of Acrobat Exchange. We do not charge for this software but can only distribute 1,000 copies of it (both Mac and PC).

CUT ALONG DASHED LINE

All software listed below, except Netscape, is available at no cost (Netscape costs \$30.00). To order software, fill in the blanks below, check the software you would like to have, and mail this form to

Free Software

Desktop Support Center (CIC-2) MS D445

Name _____ Group _____

Mail Stop _____ Z-Number _____

Cost Code _____ Program Code _____ Account Package _____

Please send the correct number of replacement high-density diskettes with your request. If you don't send any disks, we will send you the software with the understanding that you will return the diskettes after you copy the software.

_____ **DATA PHYSICIAN** Virus detection programs. (Include one high-density diskette.)

_____ **INTERNET DISKETTE** (Include one high-density diskette.)

lview31	A gif/bmp/pic viewer.
tsyncl>8	Set up your pc clock via LANL ftp timeserver automatically.
WS_Ftp	Super ftp client.
WS_Ping	Super ping and nslookup.
pkunzip	File decompression program.

_____ **NETSCAPE** (Include one high-density diskette.)

Netscape is a commercial web browser. Even though it is available on the Internet, it is not free. CIC-2 has bought 1,000 copies of Netscape for a cost of \$30.00 per copy. Enter your accounting information above. We will include a license certificate indicating your purchase. If you do not need a diskette copy of Netscape, check below.

____ Do not need a diskette. I already have a copy and just need the license.

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Multi-platform document viewer. Used with viewing "pdf" documents on the LANL web server and fast becoming an Internet standard.

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An enhanced version of the Acrobat Reader. Allows you to create and annotate "pdf" files as well as read them. Note: CIC Division bought a license of 1,000 copies of Acrobat Exchange. We do not charge for this software but can only distribute 1,000 copies of it (both Mac and PC). Indicate the number of systems on which this copy of Acrobat Exchange will be used: _____

_____ **JETFORM FILLER** (Include five high-density diskettes.)

Form-based document software for use with the LANL's web server on-line forms. Note: CIC-13 bought a license of 2,000 copies of Jetform Filler. We do not charge for this software but can only distribute 2,000 copies of it (Mac version available soon).

Indicate the number of systems on which this copy of Jetform Filler will be used: _____

INTEGRATED COMPUTING NETWORK (ICN) VALIDATION REQUEST

To access ICN Computing resources, please complete all parts of this form that apply to you, including "Special Requirements."

Mail your completed application to:
ICN Password Office (PWO)
Mail Stop: B271
Los Alamos National Laboratory
Los Alamos, NM 87545

If you have questions: Call: (505) 665-1805
E-mail: validate@lanl.gov

All Laboratory computers, computing systems, and their associated communication systems are for official business only. By completing this request, users agree not to misuse the ICN. The Laboratory has the responsibility and authority to periodically audit user files.

Owner Information

Z-Number (if you have one)	PWO Use Only	Name (last, first, middle initial)
LANL Group	LANL Mail Stop	Citizenship (Foreign National see "Special Requirements-Foreign National")
Phone Number	Cost Center	Program Code

Check LANL affiliation:

☐ LANL employee

☐ Contractor _____
(specify contract company)

☐ Consultant, VSM, associate

☐ External user _____
(specify employer)

☐ Other (specify) _____

Send password / smartcard to:

☐ Mail Stop or ☐ Mail to address indicated below

Name / Organization _____

Address _____

City, State, Zip Code _____

Access Check access method and needed partitions:

Access method: ☐ ICN Password ☐ Smartcard ☐ Both

☐ Open partition (e.g., email systems, open machines)

☐ Administrative partition (e.g., IA [BUCS, Stores, Travel], IB [EIS, FMIS, PAIRS])
If you are not a Q-cleared LANL employee, see required steps in section "Special Requirements-Administrative Partition," unless you already have Administrative access with an ICN password.

☐ Secure partition (i.e., secure machines)
Indicate level(s) of data to be processed:

☐ Unclassified

☐ Secret

I certify this person does require secure access:

Manager Signature _____ (Group Leader or above) Date _____

NOTE: A Q-clearance is required. All classified computing must be performed within the Secure environment.

PWO Use Only

New <input type="checkbox"/>	Change <input type="checkbox"/>	Clearance Status	Processed	Lv	Smartcard Serial #
Comments:					

Special Requirements

Administrative Partition			
(U.S. Citizens Only)	Lab-Wide Systems (e.g., IA [BUCS, Stores, Travel], IB [EIS, FMIS, PAIRS])		
<input type="checkbox"/> Under 18 years of age	If you need to access Administrative systems, your group leader must provide a memo accepting responsibility for your actions and justifying your need for access. This memo is to accompany all forms taken to the security briefing (see "Contractor or Non-Q-Cleared") section below. You may not access the Secure Partition.		
<input type="checkbox"/> Contractor or Non-Q-Cleared	Phone (505) 667-9444 to obtain Access Authorization packet. Phone (505) 667-9153 to schedule a security briefing. Bring all forms including this ICN Validation Request to the security briefing for approval.		
<table border="1" style="width: 100%;"> <tr> <td style="width: 70%;">Security Briefing Approval Signature</td> <td style="width: 30%;">Date</td> </tr> </table>		Security Briefing Approval Signature	Date
Security Briefing Approval Signature	Date		

<input type="checkbox"/> Foreign National Attach a copy of Form 982 (REQUEST FOR UNCLASSIFIED VISIT OR ASSIGNMENT BY A FOREIGN NATIONAL) with all approval signatures. Be sure Box #11 of Form 982 is completed. If you are not a visitor/assignee under a LANL/DOE approved Visit / Assignment Request, attach written justification from your host Division Director describing your need to access the ICN.

Authorization (required)

Print Manager Name (Group Leader or above)	Manager Z-Number	Group
Manager Signature (Group Leader or above)	Mail Stop	Date

If you are NOT a LANL employee, obtain your LANL contact's signature in addition to the contact's manager's signature.
 NOTE: LANL contacts are regular Laboratory employees. Contacts are responsible for obtaining annual re-authorizations, forwarding renewals, and notifying the ICN Password Office of changes in user or contact status.

Print LANL Contact Name	Contact Z-Number	Phone Number	Group
LANL Contact Signature	Mail Stop	Date	

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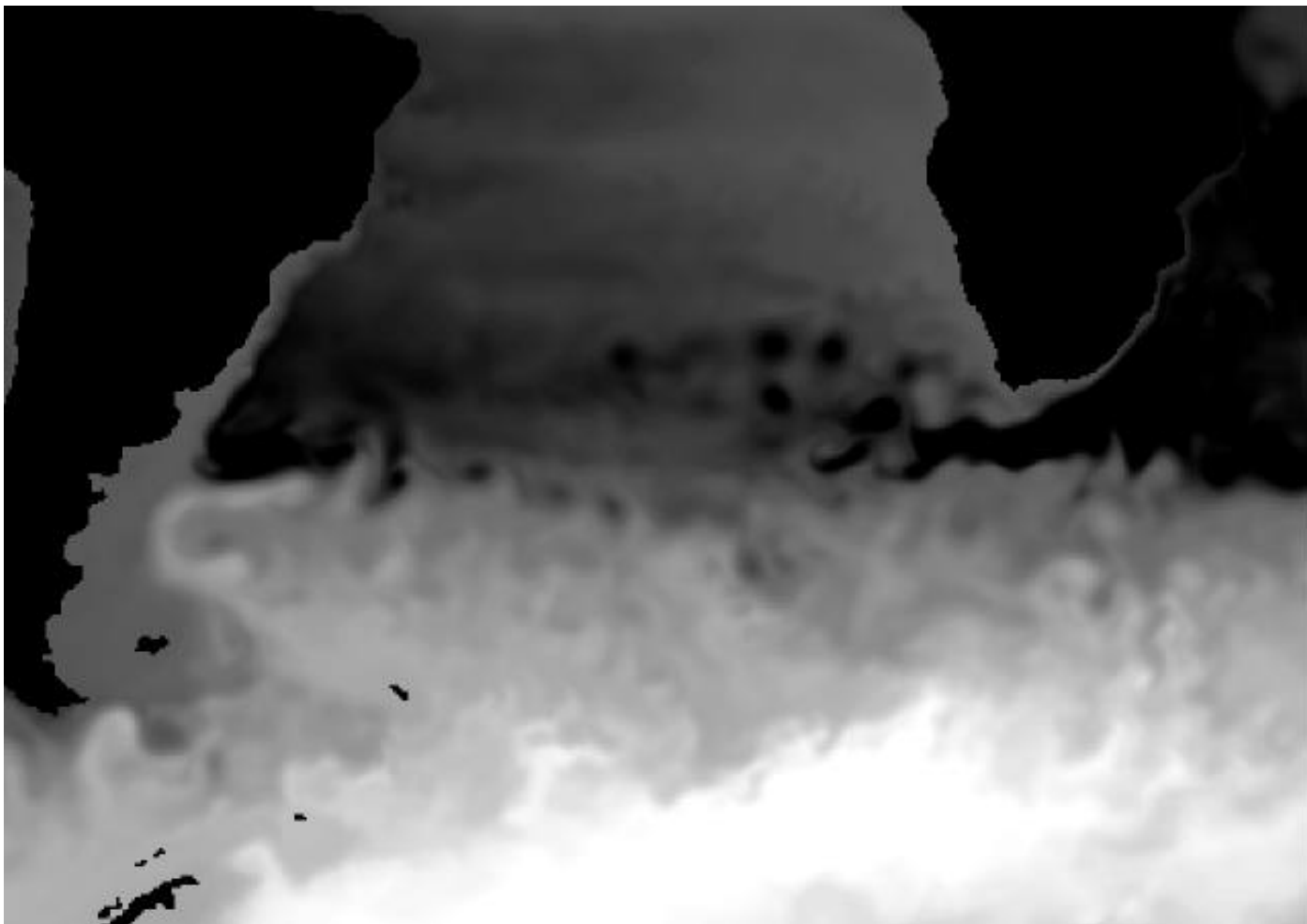
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This image depicts large (300 km diameter) oceanic eddies propagating from the tip of Africa toward South America, as simulated by the Parallel Ocean Program (POP) on the CM-5 in the Los Alamos Advanced Computing Laboratory (ACL). The continents are shown in black while the varying shades of gray indicate sea-surface height. These heights range from one meter higher than the global average (darkest shades) to one meter lower (lightest shades). Such eddies have been observed with laser altimeters onboard satellites. POP was developed by Richard Smith, John Dukowicz (both of T-3), and Robert Malone (ACL) for the DOE CHAMMP climate modeling program.

Los Alamos

NATIONAL LABORATORY

Los Alamos, New Mexico 87545

BITS is published monthly to highlight recent computing and communications activities within the Laboratory and to update hardware and software changes on the Laboratory's Integrated Computing Network (ICN). BITS may be accessed electronically via Gopher, Mosaic, and Netscape (search under the heading: Computing at LANL). We welcome your suggestions and contributions.

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